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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/913,791	08/16/2001	Nobuhiko Kenmochi	110215	4112
25944	7590	10/12/2005		
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			EXAMINER DEPPE, BETSY LEE	
			ART UNIT	PAPER NUMBER
			2637	

DATE MAILED: 10/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/913,791

Applicant(s)

KENMOCHI, NOBUHIKO

Examiner

Betsy L. Deppe

Art Unit

2637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5 and 6 is/are rejected.
- 7) ☒ Claim(s) 3 and 4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 July 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed July 28, 2005 have been fully considered but they are not persuasive.
2. In response to applicant's argument on pages 7-8 that Warren et al. teaches an exclusive OR logic and does not multiply the output of each stage, Figure 2 of Warren et al. shows a shift register (12) with multiple stages (i.e. B<sub>1</sub>-B<sub>M</sub>). Each stage provides data to an exclusive OR gate which constitutes a "multiplier" consistent with the disclosed invention. Since the specification and figures in the present application regard exclusive OR-circuits as a "multiplier" (for example, see paragraph [0024] and EO11 - EO14 in Figure 2), the exclusive OR logic gates in Warren read on the claim limitation. In light of the definition of "multiplier" in the detailed description, Warren et al. discloses the claimed invention and the rejection under 102(b) is proper.
3. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the structure in Warren et al. does not receive data that is input to both divided shift registers) are not recited in the rejected claim(s). Claim 1 recites a plurality of shift registers and claim 2 recites a first and second shift register. However, the claims do not recite that the data input is provided to multiple shift registers as argued by the

applicant. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

### ***Drawings***

4. The drawings were received on July 28, 2005. These drawings are acceptable.

### ***Claim Objections***

5. Claim 3 is objected to because of the following informalities: "a spreading-code sequence" should be "the input data" in order to accurately claim the invention by being consistent with Figure 3. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 1, 5, and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Warren et al. (US Patent No. 5,946,344 cited in the Office Action mailed June 8, 2005).

8. With regard to claim 1, Figure 2 of Warren et al. discloses the claimed invention including an n-stage shift register (12) in which the output of each stage is multiplied (by  $22_M$ ) by a filter coefficient (M) and added (24). (See column 4, lines 41-54) Warren et

al. also teaches driving each divided shift register in synchronization with the input data.  
(See column 4, lines 12-15)

9. With regard to claim 5, Warren et al. discloses the claimed invention including an RF receiving section, a correlation section and a baseband demodulation section wherein the correlation section includes the match filter of claim 1. (See Warren et al., column 3, lines 45-56)

10. With regard to claim 6, Warren et al. discloses the claimed invention including an RF receiving section, a correlation section; a baseband demodulation section and a packet processing section wherein the correlation section includes the match filter of claim 1. (See Warren et al., column 1, lines 42-66 and column 3, lines 45-56)

***Claim Rejections - 35 USC § 103***

11. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

12. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Warren et al. in view of Ovens et al. (US Patent No. 5,381,455 cited in the Office Action mailed January 7, 2005). Warren et al. discloses the claimed invention including an n-stage shift register having a predetermined number of bits and in which the output of each stage is multiplied (by  $2^{2M}$ ) by a filter coefficient (M) and added (24). (See column 4, lines 41-54) However, Warren et al. does not disclose dividing the n-stage shift register into a first and second shift register with one of the shift registers shifting at a rising

edge of a clock signal and the other shift register shifting at a falling rising edge of the clock signal.

Ovens et al. discloses an n-stage shift register that is an interleave shift register that divided into a first and second shift register with one of the shift registers shifting at a rising edge of a clock signal and the other shift register shifting at a falling rising edge of the clock signal. (See Figures 1 and 2; column 2, line 67 - column 2, line 3; and column 2, lines 30-48) It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Ovens et al. with that of Warren et al. in order to increase operating speed without an appreciable increase in power consumption. (See Ovens et al., column 1, lines 49-55)

### ***Conclusion***


13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betsy L. Deppe whose telephone number is (571) 272-3054. The examiner can normally be reached on Monday, Tuesday and Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272 - 2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Betsy L. Deppe  
Primary Examiner  
Art Unit 2637

Accepted  
130  
10/4/05

FIG. 1

